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From Lead To Performance: How Leadership Motivation And Discipline Shape Employee Productivity In PT. Tjiwi Kimia, Tbk.

Nur Kholifah[1]
Teguh Widodo[1]
[1]Affiliation: Department of Management, Institut Teknologi dan Bisnis Asia, Malang, Indonesia
Email Correspondence: nur92789@gmail.com

Abstract

Introduction/Main Objectives: This study examines the influence of leadership style, work motivation, and work discipline on the productivity of employees at PT Tjiwi Kimia Tbk as a representative of large manufacturing industries in Indonesia. The objective is to understand the extent to which these organizational behavior factors affect performance in the context of industrial efficiency and competition.

Background Problems: There has been a decline in employee discipline and productivity at PT Tjiwi Kimia Tbk during the 2023–2025 period. This study seeks to answer the extent to which leadership style, work motivation, and work discipline influence productivity simultaneously and partially.

Novelty: The novelty of this research lies in the empirical analysis of the relationship between leadership, motivation, and discipline in the context of the manufacturing industry in Indonesia, which has rarely been studied simultaneously. Most studies have focused on the public and education sectors, thus failing to describe the characteristics of industries with high production pressure.

Research Methods: This study uses an associative quantitative approach with multiple linear regression. Primary data was obtained through a Likert scale questionnaire from 70 employees in three main departments (HR, Mill Service, and Export-Import), then analyzed using SPSS version 27 through validity and reliability tests, classical assumption tests, and hypothesis tests (F and t tests).

Finding/Results: The results show that leadership, motivation, and work discipline simultaneously have a significant effect on productivity ($F = 24.335$; Sig. < 0.001). Partially, only work motivation has a positive and significant effect (Sig. $= 0.006$), while the other two variables do not have a significant effect.

Conclusion: Work motivation is a dominant factor in increasing employee productivity. These results reinforce Maslow's 1943 theory and Robbins and Judge's 2013 theory regarding the importance of motivational needs in a work environment that supports self-actualization. Companies are advised to strengthen policies regarding rewards and career development, as well as create a work environment that supports sustainable productivity.

Keywords: Leadership Style, Work Motivation, Work Discipline, Employee Productivity.

Introduction

In the dynamics of the modern world of work, which is increasingly competitive and driven by technological acceleration and globalization, the main challenge for companies lies not only in their ability to innovate in products and processes, but also in managing productive and highly competitive human resources. Employee productivity is an important indicator of organizational success, especially in the manufacturing sector, which demands efficiency and consistency in work results. However, the reality in the field shows that productivity is not solely determined by individual technical abilities, but also by the quality of leadership, the level of work motivation, and the discipline of employees in carrying out their duties.

Problems arise when these three factors are not in balance. Ineffective leadership styles can reduce work enthusiasm, low motivation can reduce employee engagement, and poor work discipline can lead to an overall decline in performance. In the context of PT Tjiwi Kimia Tbk, one of the largest manufacturing companies in Indonesia, the phenomenon of employee productivity fluctuations has become a strategic issue that needs to be studied in more depth.

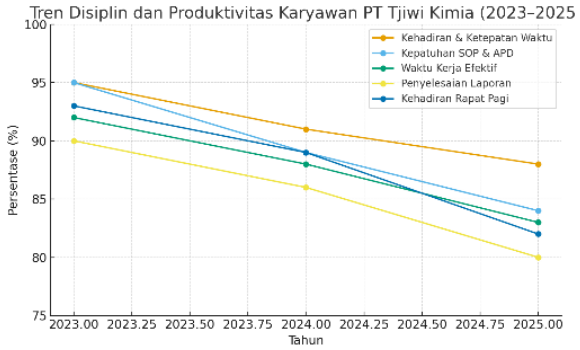

Figure 1. Employee Discipline and Productivity PT. Tjiwi Kimia 2023-2025
Source: Company Internal Data

This phenomenon shows that the level of discipline and productivity of PT Tjiwi Kimia employees has gradually declined from an average of 93% in 2023 to 83% in 2025. The most significant decline occurred in compliance with SOPs and timely completion of reports, indicating a decline in employee motivation and work responsibility.

In an effort to increase work motivation, PT Tjiwi Kimia has implemented a reward system, such as the Best Employee Award, Gold Pin for Length of Service, and Bonuses. This program aims to give appreciation to outstanding employees and increase work enthusiasm. However, the results of the system that has been implemented have not shown a significant improvement in employees.

Research by Putri & Swasti, (2024) shows that work discipline has a significant influence on employee performance, where compliance with work rules and punctuality contribute directly to optimal work results. Conversely, low discipline can hinder the achievement of organizational targets. In addition, leadership style has been proven to be a crucial factor in shaping work behavior. Mphaluwa et al, (2025) argue that charismatic and democratic leadership styles can increase employee motivation and engagement, which in turn significantly improves performance. In Zaeni et al, research, leadership as a mediator is important because leaders not only provide direction but also bridge communication between members. This creates a conducive atmosphere that facilitates synergy within the team.

In terms of motivation, Rozi et al, (2024) found that high levels of work motivation are positively correlated with productivity, as motivated individuals tend to be more focused, committed, and responsible for their work results. Putra & Jaya, (2024) explained that in maximizing employee productivity, organizations need to implement supportive leadership, increase work motivation, and enforce work discipline as a foundation for long-term productivity. Similar findings were presented by Vo et al, (2022), which explained that work motivation is not only influenced by internal factors such as individual needs, but also by social and cultural factors within the organization that shape effective leadership. Strong work motivation and good discipline are key prerequisites for achieving sustainable productivity in a modern industrial environment such as PT Tjiwi Kimia Tbk.

Previous studies have highlighted the importance of leadership, motivation, and discipline on employee productivity. However, most studies have been conducted in the context of the public sector, education, or small and medium-sized enterprises, so the results do not fully represent the dynamics of large manufacturing industries in Indonesia. For example, in the study " , the author examined the influence of work discipline in the education sector and found a significant relationship between teachers' compliance with established regulations and their sense of loyalty and adherence to norms. However, the context is different from the industrial world, which has stricter production pressures and time targets.

In addition, Vuong & Nguyen, (2022) highlight that employee performance measurements in various organizations often do not consider the dimensions of leadership behavior and psychological motivation that play a role in driving sustainable performance. Meanwhile, Aguinis & Burgi-Tian, (2021) emphasizes the importance of adaptive leadership and performance evaluation systems oriented towards employee development, especially in crisis situations, but is still limited to the global context. Thus, there is an empirical gap and contextual gap in the literature examining the relationship between leadership, motivation, discipline, and productivity in large manufacturing sectors in Indonesia, such as PT Tjiwi Kimia Tbk.

Based on this background, this study aims to (1) analyze the effect of leadership style on employee productivity at PT Tjiwi Kimia Tbk. (2) analyze the effect of work motivation on employee productivity at PT Tjiwi Kimia Tbk. (3) analyze the effect of work discipline on employee productivity at PT Tjiwi Kimia Tbk.

Research Methods

This research employs an associative quantitative method, which intends to identify the correlation and impact between independent and dependent variables through the testing of statistical hypotheses. This method was selected as it effectively analyzes causal relationships between variables that are quantified with numerical data. With this method, researchers are able to examine how factors like leadership style, work motivation, and work discipline influence employee productivity. The study's population included all 70 employees working in the Human Resources (HR), Mill Service, and Export Import divisions of PT Tjiwi Kimia.

The sampling method utilized was saturated sampling. As explained by Sugiyono, (2019) Sugiyono (2019), saturated sampling involves selecting the entire population as the sample. Data analysis was conducted using SPSS software version 27, incorporating tests for validity, reliability, classical assumptions, and multiple linear regression according to Sugiyono, (2017).

This research incorporates two forms of data: primary and secondary data. Primary data was collected directly from participants via questionnaires designed based on specific indicators for each variable using the Likert scale. On the other hand, secondary data came from

company records, annual reports, and academic sources including relevant textbooks and peer-reviewed journals.

Result

Table 1. Validity Test

Item	R-Count	R-Table	Sig. (2-tailed)	A	Conclusion
X1.1	0,871	0,235	0,000	0.05	Valid
X1.2	0,699	0,235	0,000	0.05	Valid
X1.3	0,822	0,235	0,000	0.05	Valid
X1.4	0,479	0,235	0,000	0.05	Valid
X1.5	0,817	0,235	0,000	0.05	Valid
X1.6	0,476	0,235	0,000	0.05	Valid
X1.7	0,370	0,235	0,000	0.05	Valid
X1.8	0,479	0,235	0,000	0.05	Valid
X1.9	0,532	0,235	0,000	0.05	Valid
X1.10	0,671	0,235	0,000	0.05	Valid
X2.1	0,479	0,235	0,000	0.05	Valid
X2.2	0,401	0,235	0,000	0.05	Valid
X2.3	0,820	0,235	0,000	0.05	Valid
X2.4	0,399	0,235	0,000	0.05	Valid
X2.5	0,656	0,235	0,000	0.05	Valid
X2.6	0,265	0,235	0,000	0.05	Valid
X2.7	0,543	0,235	0,000	0.05	Valid
X2.8	0,820	0,235	0,000	0.05	Valid
X2.9	0,263	0,235	0,000	0.05	Valid
X2.10	0,670	0,235	0,000	0.05	Valid
X3.1	0,443	0,235	0,000	0.05	Valid
X3.2	0,431	0,235	0,000	0.05	Valid
X3.3	0,615	0,235	0,000	0.05	Valid
X3.4	0,587	0,235	0,000	0.05	Valid
X3.5	0,397	0,235	0,000	0.05	Valid
X3.6	0,496	0,235	0,000	0.05	Valid
X3.7	0,465	0,235	0,000	0.05	Valid
X3.8	0,422	0,235	0,000	0.05	Valid
X3.9	0,687	0,235	0,000	0.05	Valid
X3.10	0,570	0,235	0,000	0.05	Valid
Y.1	0,435	0,235	0,000	0.05	Valid
Y.2	0,651	0,235	0,000	0.05	Valid
Y.3	0,481	0,235	0,000	0.05	Valid
Y.4	0,651	0,235	0,000	0.05	Valid
Y.5	0,435	0,235	0,000	0.05	Valid
Y.6	0,361	0,235	0,000	0.05	Valid
Y.7	0,450	0,235	0,000	0.05	Valid
7.8	0,418	0,235	0,000	0.05	Valid
Y.9	0,566	0,235	0,000	0.05	Valid
Y.10	0,527	0,235	0,000	0.05	Valid

Source : IBM SPSS Version 27 (2025)

The The research tool is regarded as valid when the significance value (2-tailed) for every overall variable is lower than the significance level of the study (2-tailed).

Table 2. Reliability Test

Item	Cronbach's Alpha if Item Deleted	Provision	Conclusion
X1	0,840	>0,6	Reliabel
X2	0,717	>0,6	Reliabel
X3	0,687	>0,6	Reliabel
Y	0,663	>0,6	Reliabel

Source: IBM SPSS Version 27 (2025)

Reliability testing was performed to assess how consistent or dependable the research tool is in evaluating the studied variables. In this study, Cronbach's Alpha was utilized for reliability testing, where an instrument is deemed reliable if it scores above 0. 60 (*Ghozali 2018*).

According to the reliability test outcomes shown in the table above, the Cronbach's Alpha score exceeds 0. 60. Therefore, we can conclude that all items in the questionnaire used in this research are reliable for the subsequent analysis phase.

An instrument for research can be regarded as reliable if the Cronbach's Alpha score is above

Table 3. Kolmogorov-Smirnov Test

		Unstandarized Residual
N		70
Normal Parameters[a, b]	Mean	.0000000
	Std. Deviation	2.48827095
Most Extreme Differences	Absolute	.086
	Positive	.071
	Negative	-.086
Test Statistic		.086
Asymp. Sig. (2-tailed)		.200[d]

Source: IBM SPSS Version 27 (2025)

Testing for normality was performed to assess whether the data in the regression model followed a normal distribution. This analysis employed the One-Sample Kolmogorov-Smirnov Test, utilizing a significance level of α = 0. 05.

Based on the test results in the table above, the Asymp. Sig. (2-tailed) value is 0.200, which is greater than 0.05. Thus, it can be concluded that the residual data in the regression model is normally distributed.

Table 4. Multicollinearity Test

Model		Unstandardized Beta	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Tolerance	Statistics VIF
1	(Constant)	11.940	3.770		3.167	.002		
	X1	.058	.127	.073	.456	.650	.280	3.570
	X2	.496	.174	.534	2.841	.006	.211	4.735
	X3	.169	.120	.174	1.404	.165	.466	2.144

Source: IBM SPSS Version 27 (2025)

The multicollinearity assessment, as presented in the coefficients table, reveals the following Tolerance values for each predictor: X1 registers at 0.280, X2 at 0.211, and X3 at 0.466. Given that all Tolerance figures exceed the 0.10 threshold, this suggests a lack of substantial intercorrelation among the independent variables. Concurrently, the Variance Inflation Factor (VIF) for X1 is 3.570, for X2 is 4.735, and for X3 is 2.144. These VIF metrics remain under the established acceptable limit of 10.

Thus, it can be concluded that this regression model does not exhibit multicollinearity. This means that each independent variable (X1, X2, and X3) provides unique information and does not strongly influence each other, so the regression model is suitable for further analysis.

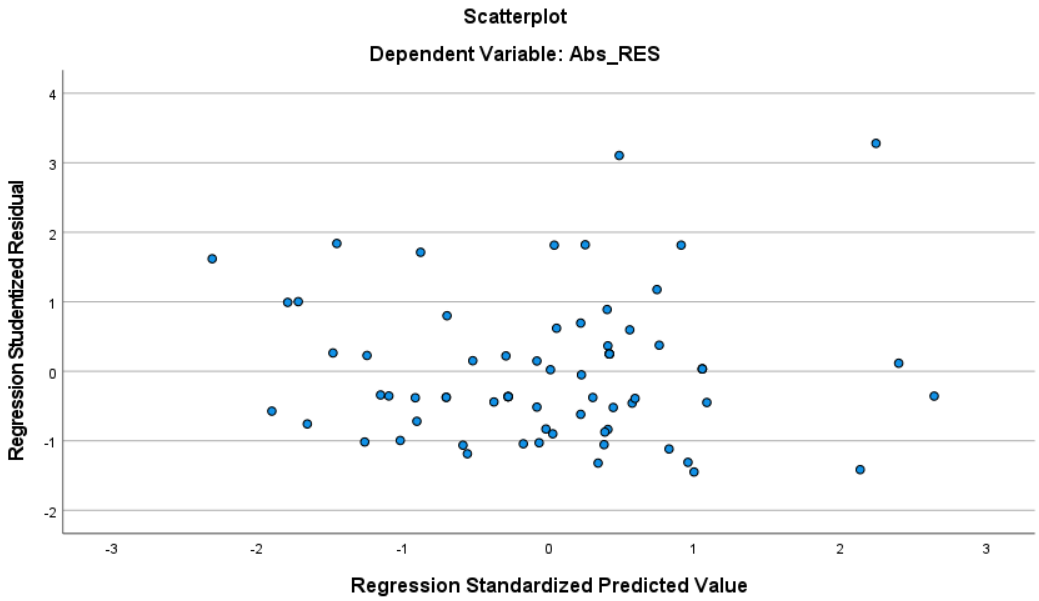

Figure 2. Heteroscedasticity Test
Source: IBM SPSS Version 27 (2025)

The purpose of the heteroscedasticity test is to ascertain if the variance of the residuals in a regression model differs across observations. Analysis of the scatterplot generated from the test results reveals that the residual points are dispersed randomly around the zero axis, exhibiting no discernible pattern. Consequently, this suggests that the regression model is not affected by heteroscedasticity, affirming its suitability for application.

Table 5. Coefficient of Determination Test (R^2)

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.725[a]	.525	.504	2.54419

Source: IBM SPSS Version 27 (2025)

The Adjusted R Square of 0.504, representing 50.4%, indicates that the independent variables collectively influence the dependent variable. The underexplained portion, totaling 49.6%, is attributable to factors outside the scope of this investigation.

Table 6. F-Test

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	472.558	3	157.519	24.335	<,001[b]
	Residual	427.213	66	6.473		
	Total	899.771	69			

Source: IBM SPSS Version 27 (2025)

Based on the results of the ANOVA (Analysis of Variance) test in the table above, the calculated F value is 24.335 with a significance value of < 0.001. This significance value is smaller than 0.05, so it can be concluded that the variables of leadership style, work motivation, and work discipline simultaneously have a significant effect on employee productivity at PT Pabrik Kertas Tjiwi Kimia Tbk.

Table 7. T-test

	Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	11.940	3.770		3.167	.002
	X1	.058	.127	.073	.456	.650
	X2	.496	.174	.524	2.841	.006
	X3	.169	.120	.174	1.404	.165

Source: IBM SPSS Version 27 (2025)

Based on the t-test results, the significance values for variable X1 are 0.650, X2 are 0.006, The outcomes of the t-test indicate the following significance values: 0.650 for variable X1, 0.006 for variable X2, and 0.165 for variable X3. Given that the significance value for X2 is below the 0.05 threshold, it can be inferred that X2 exerts a statistically significant influence on Y. Conversely, X1 and X3, with significance values exceeding 0.05, do not demonstrate a significant effect. Consequently, only variable X2 makes a partial but significant contribution to the variations observed in variable Y.

Table 8. Multiple Linear Regression Test

	Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	11.940	3.770		3.167	.002
	X1	.058	.127	0.073	.456	.650
	X2	.496	.174	.524	2.841	.006
	X3	.169	.120	.174	1.404	.165

Source: IBM SPSS Version 27 (2025)

Based on the results of the multiple linear regression test table above, the multiple linear model with B values can be obtained as follows:

$$Y = a+b1X1 + b2X2 + b3X3 + e \quad (1)$$

$$Y = 11.940\ (X1) + 0.058\ (X2) + 0.496\ (X3) + e \quad (2)$$

The 11,940 figure represents a constant or condition under which the dependent variable of employee productivity (Y) is positively influenced by the independent variables: leadership style (X1), work motivation (X2), and work discipline (X3).

The regression coefficient for X1, b1, is 0.058, suggesting that leadership style does not significantly impact employee productivity.

The regression coefficient for X2, b2, is 0.496, indicating that work motivation has a positive influence, implying that elevated employee motivation is associated with increased productivity.

The regression coefficient for X3 indicates that work discipline does not exhibit a positive effect on employee productivity.

Consequently, the multiple linear regression analysis reveals that work motivation (X2) exerts the most substantial influence on employee productivity when contrasted with leadership style (X1) and work discipline (X3).

Discussion

The Influence of Leadership Style on Employee Productivity

The results show that the regression coefficient value for leadership style is 0.058 with a significance level of 0.650 (> 0.05), indicating that the effect of leadership style on productivity is insignificant. This is due to the characteristics of the organization, which already has a standard work system and strong procedures, so that the role of leadership style is no longer a major determining factor. According to Robbins, (2017), effective leadership should be able to influence subordinates through good communication, motivational skills, and clear direction towards organizational goals. This insignificance may be due to high work routine factors, where the effectiveness of leadership style has not been balanced with innovation and two-way communication between superiors and subordinates.

The Influence of Work Motivation on Employee Productivity

Research indicates that work motivation exerts a positive and statistically significant influence on employee productivity. This is evidenced by a regression coefficient of 0.496 and a significance value of 0.006. This study reinforces Maslow, (1943) Maslow's hierarchy of needs theory, which explains that individual motivation arises when basic needs to self-actualization are met. In the context of PT Tjiwi Kimia Tbk, motivational factors such as recognition of achievements, job security, and opportunities for development are drivers of increased productivity. The findings derived from this investigation align with the conclusions presented in the study by Utomo et al, (2025) which established a notable correlation between work motivation and enhanced productivity within the manufacturing sector.

The Effect of Work Discipline on Employee Productivity

The work discipline variable has a positive influence with a regression coefficient of 0.169. The results of this test show that the influence is not significant (Sig. 0.165 > 0.05), indicating that employees who have a fairly good level of discipline, this factor has not become the main driver in increasing productivity. Hasibuan, (2020) defines work discipline as an individual's recognition and voluntary adherence to established regulations. In practice, normative discipline is not always directly proportional to increased output, especially when the workload is high and intrinsic motivation has not been fully developed.

Conclusion

This research's findings suggest that leadership, motivation, and adherence to work standards collectively exert a considerable influence on the productivity levels of employees at PT Tjiwi Kimia Tbk. When considering individual factors, it has been demonstrated that work motivation exerts the most potent and statistically significant effect in comparison to the other measured variables.. This finding confirms that motivational factors, both internal and external, are very important in improving performance and productivity in the manufacturing sector. Practically, these results indicate that companies should strengthen policies that focus on increasing employee motivation through fair rewards, career development, and creating a work environment that can fulfill psychological needs and self-actualization (Maslow, 1943; Robbins, 2017)

However, this study also has several limitations. First, the number of respondents, which was 70 people from three different departments, did not fully reflect the entire population of PT Tjiwi Kimia Tbk employees, so the generalization of the results is still limited. Second, this study only focused on three main variables without considering other external elements such as working conditions, employee satisfaction, or communication methods within the organization. Therefore, further research is recommended to expand the number of respondents, involve more departments, and add other contextual variables in order to gain a deeper understanding of the factors that affect employee productivity in the industrial sector.

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